CLIPPEDIMAGE= JP408178830A
PAT-NO: JP408178830A
DOCUMENT-IDENTIFIER: JP 08178830 A
TITLE: DETECTOR

PUBN-DATE: July 12, 1996

INVENTOR-INFORMATION:
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APPL-NO: JP06323047
APPL-DATE: December 26, 1994

INT-CL_(IPC): G01N015/14

ABSTRACT:
PURPOSE: To determine the size of a particle using a simple optical detection
means by determining the ratio of intensity of light scattering in a plurality
of different directions.

CONSTITUTION: A semiconductor laser (light source) 2 emits laser light
(irradiation light) for irradiating a solution or a gas. A first photodetector
element 3 comprises photodiodes, or the like, arranged on a line connecting the
emitting part of the laser 2 and a quartz container 1. A second photodetector
element 4 comprises photodiodes, or the like, receiving the light backscattering at an angle θY. arranged at the angle θY with
respect to the central optical axis of laser light emitted from the laser 2 on
the same side as the laser 2 with respect to the container 1. An arithmetic
unit calculates the ratio of intensity of signals outputted from the elements
3, 4 and determines the particle size based on the ratio of

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TITLE: Optical particle detector for measuring particle size distribution -
has several optical sensors which detects size of irradiated material from
intensity ratio of scattered light in several direction

PATENT-ASSIGNEE: SANYO ELECTRIC CO LTD[SAOL]

PRIORITY-DATA: 1994JP-0323047 (December 26, 1994)

PATENT-FAMILY:

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APPLICATION-DATA:

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ABSTRACTED-PUB-NO: JP08178830A
BASIC-ABSTRACT: The detector includes a semiconductor laser (2) which
irradiates a light to an irradiated material (1). The irradiated material
scatters the irradiated light and produces an incidence angle in several
directions.

The produced incidence angle which differs mutually is detected by several
optical sensors (3,4). The size of the irradiated material is detected by the
optical sensors from the intensity ratio of the scattered light in several
directions.

ADVANTAGE - Reduces optical particle detector cost due to eliminated complex
optical sensor. Accurately detects size of irradiated material

from intensity
ratio of scattering light accurately. Ensures irradiated material with
improved size detection sensitivity. Prevents direct projection of irradiated
light in optical detector.

CHOSEN-DRAWING: Dwg.1/2

TITLE-TERMS:
OPTICAL PARTICLE DETECT MEASURE PARTICLE SIZE DISTRIBUTE OPTICAL SENSE DETECT
SIZE IRRADIATE MATERIAL INTENSITY RATIO SCATTERING LIGHT DIRECTION

DERWENT-CLASS: S03

EPI-CODES: S03-E04C; S03-F05C; S03-F06C;

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